Patent Claims:

1. A method of controlling the temperature of a biological specimen in indirect contact with a solid support member by using induction heating, said specimen being fixed to a carrier or said specimen being in liquid form in contact with a carrier onto which capture probes for capturing said specimen are fixed, and said carrier being removably placed in, on, or under said support member, said solid support member is a cartridge for a carrier or a cover plate for a carrier and comprising a conducting material, said conducting material being in contact with a layer of heat conducting material, which heat conducting material is in contact with the specimen, and said method comprising a step of subjecting said solid support to an oscillating magnetic field.

2. A method according to claim 1, wherein said solid support member is a cartridge comprising a chamber encompassed by a cartridge wall, said carrier carrying said specimen or said capture probes being placed in said chamber and said chamber being subjected to a magnetic field, said chamber comprising at least one access opening for introducing the carrier, and for passing a processing fluid into and out of the chamber

3. A method according to claim 2 wherein said conducting material is preferably in the form of a solid piece of conducting material placed on the inner side of said cartridge wall, or in the form of one or more solid pieces or particles of conducting material incorporated in the wall of said cartridge.

4. A method according to claim 2 or 3, wherein said carrier is a microscope slide, said cartridge comprising a chamber, and at least one access opening for

introducing and withdrawing said slide, and at least one opening for passing a processing fluid into and out of the chamber, said microscope slide is placed in said chamber, and bears said or said capture probes.

5. A method according to claim 1, wherein said solid support member is a cover plate for a microscope slide, said cover plate comprising an electric conducting material, said specimen or said capture probes being fixed onto said microscope slide and placed between said cover plate and said slide when subjecting said solid support to an oscillating magnetic field, said slide preferably being a transparent plate.

6. A method according to any one of the preceding claims, wherein the electrically conducting material is a metal, preferably a non magnetic metal or iron, more preferably a metal selected between carbon steel, stainless steel, brass, copper, aluminium, silver, gold, platinum, nickel, zinc, pewter or alloys thereof.

7. A method according to any one of the preceding claims, wherein the conducting material is in the form of one or more plates, having a length, a width, and a thickness, said length and said width being at least 10 times the thickness.

8. A method according to any one of the preceding claims 1-6, wherein the electrically conducting material is in the form of powder incorporated in a polymer material, the amount of powder being sufficiently high to raise the temperature of the specimen when the solid support is subjected to the oscillating magnetic field.

9. A method according to claim 8, wherein said specimen is in the form of a solid specimen, preferably a tissue section or a section of cell blocks.

10. A method according to any one of the preceding claims, wherein said solid support comprises an amount of electrically conducting material sufficiently high to raise the temperature of the specimen when the solid support is subjected to the oscillating magnetic field.

11. A method according to any one of the preceding claims, wherein said magnetic field is generated by use of an electromagnetic inductor comprising an induction coil and a power supply, and sending alternating current through said coil.

12. A method according to claim 11, wherein said power supply is an AC power supply, the frequency range is between 1 Hz-500 kHz, preferably up to 215 kHz, more preferably between 50-100 HZ.

13. A method according to claim 12, wherein power delivered through said coil is up to about 100 W, preferably about 20 W.

14. A method according to any one of the preceding claims, comprising a step of heating the specimen to a temperature of between 25 and 110 °C, preferably between 30 and 95 °C, more preferably between 35 and 85 °C.

15. A method according to claim 14, wherein the specimen is heated and maintained at a constant temperature for a period of 1 minute and up to 1 week, preferably for up to 1 hour.

16. A method according to claim 14, wherein the specimen is dried and/or fixed at elevated temperature, preferably a temperature above 30 °C.

17. A method according to claim 14, wherein the specimen is subjected to a reaction step at elevated temperature, preferably a temperature above 30 °C, said reaction step comprises one or more of the steps capturing the specimen, baking the specimen, exposing the specimen to antigen retrieval, denaturating the specimen, hybridisating the specimen, devaxing the specimen and washing the specimen.

18. A method of carrying out an automatic or semi-automatic assay of one or more specimens each fixed on a microscope slide, said method comprising the steps of

i) placing the microscope slide in a cartridge comprising a chamber encompassed by a cartridge wall, said cartridge comprising an electrically conducting material in the form of a solid piece of conducting material placed on the inner side of said cartridge wall, or in the form of one or more solid pieces or particles of conducting material incorporated in the wall of said cartridge,

ii) placing the cartridge in an induction coil and sending alternating current through said coil to generate a magnetic field.

19. A method according to claim 18 comprising an automatic or semi-automatic assay of two or more specimens, said method comprising the steps of

iii) placing each microscope slide individually in a cartridge comprising a chamber encompassed by a cartridge wall, said cartridge comprising an electrically conducting material in the form of a solid piece of conducting material placed on the inner side of said cartridge wall, or in the form of one or more solid pieces or particles of conducting material incorporated in the wall of said cartridge,

iv) placing each cartridge individually in an induction coil and sending alternating current through said coil to generate a magnetic field.

20. A solid support member in combination with a carrier for a specimen or capturing probes for a specimen for testing or treating a specimen of biological material, said support member preferably being at least partly of a glass material or a polymer material and said support member comprising an electrically conducting material on the surface turning against the side of the carrier carrying the specimen.

21. A solid support member in combination with a carrier according to claim 20, said support member being at least partly of a polymer material selected from synthetic and natural polymers such as, polystyrene, polyethylene, polyurethane, polyethylene teraphthlates, polyvinyl acetate, polyvinyl chloride, polyvinyl-pyrrolidone, polyacrylonitrile, polymethyl-methacrylate, polytetrafluoroethylene, polycarbonate, poly-4-methyl-pentylene, polyester, polystyrene polypropylene, cellulose, nitro-cellulose, starch, polysaccharides, natural rubber, butyl rubber, styrene butadiene rubber, silicone rubber and copolymers or mixtures thereof.

22. A solid support member in combination with a carrier according to claim 21, wherein an electrically conducting material is incorporated into the polymer material of the support member.

23. A solid support member in combination with a carrier according to claim 22, wherein the electrically conducting material is in the form of powder incorporated in the polymer material, the amount of powder and the particle size of the powder being sufficiently high to provide the material with electrically conducting properties.

24. A solid support member in combination with a carrier according to any one of the preceding claims 20-23, wherein the electrically conducting material is a metal preferably a non magnetic metal or iron, more preferably a metal selected between carbon steel, stainless steel, brass, copper, aluminium, silver, gold, platinum, nickel, zinc, pewter or alloys thereof.

25. A solid support member in combination with a carrier according to any one of the preceding claims 20-22 and 24, wherein the electrically conducting material is in the form of one or more plates, having a length a width and a thickness, said length and said width being at least 10 times the thickness.

26. A solid support member in combination with a carrier according to any one of the preceding claims 20-25, wherein said solid support comprises between 10 and 100.000 mg of an electrically conducting material.

27. A solid support member in combination with a carrier according to any one of the preceding claims 20-26,

wherein the support member is a cover plate for a microscope slide or a cartridge for a microscope slide.

28. A solid support member in combination with a carrier according to claim 27, wherein said solid support member is a cartridge comprising a chamber, for receiving the carrier with the specimen or the probes for a specimen, and at least one access opening for introducing the carrier, and for passing a processing fluid into and out of the chamber, said conducting material preferably being in the form of a solid piece of conducting material placed on the inner side of said cartridge wall, or in the form of one or more solid pieces or particles of conducting material incorporated in the wall of said cartridge.

29. A solid support member in combination with a carrier according to claim 28, wherein said conducting material being in the form of a solid piece of electrically conducting material placed on the inner side of said cartridge wall and said cartridge wall comprises an opening allowing direct access to the solid piece of electrically conducting material.

30. A solid support member in combination with a carrier according to claim 27, wherein said carrier is a microscope slide, said slide preferably being a least partly transparent.

31. A solid support member in combination with a carrier and an electromagnetic inductor, said support member being a support member according to anyone of claims 20-30 and said electromagnetic inductor being able to generate a magnetic field.

32. A solid support member in combination with an inductor according to claim 31, wherein said inductor comprises an induction coil and a power supply, said coil, preferably being sufficiently large to surround the support member, and said power supply being able to sending alternating current through said coil.

33. A support member in combination with an inductor according to claim 32, wherein said power supply is an AC power supply, the frequency range is between 1 Hz-500 kHz, preferably up to 215 kHz, more preferably between 50-100 HZ.

34. Use of a support member in combination with an inductor according to any one of claims 31-33 for treatment of a biological specimen, preferably a vegetable or an animal specimen, more preferably a human specimen, even more preferably cellular specimens of bones, blood or muscles.

35. Use of a support member according to claim 34 for immunohistochemical procedures or in situ hybridisation.

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